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Rubber compsn. for pneumatic tyre treads with high wear resistance -  
comprises rubber compsn. contg. natural rubber, styrene butadiene  
copolymer, and epoxidised natural rubber, blended with silica

Patent Assignee: YOKOHAMA RUBBER CO LTD (YOKO )

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 7090123	A	19950404	JP 93233755	A	19930920	199522 B
JP 3363539	B2	20030108	JP 93233755	A	19930920	200306

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Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 7090123	A	5	C08L-007/00	
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Abstract (Basic): JP 7090123 A

Tyre tread rubber compsn. (I) comprises 100 pts. wt. rubber compsn.  
contg. (A) 20-50 pts. wt. of natural rubber (NR); (B) 20-40 pts. wt. of  
a styrene butadiene copolymer which has a vinyl content in the  
butadiene part of 35-80 wt.% and a styrene content of 10-40 wt.%, and  
(C) 20-40 pts. wt. of an epoxidised natural rubber having an  
epoxidation degree of 10-60 wt.% blended with 30-70 pts. wt. of silica.

Component (B) is e.g. a modified SBR(B-1) which has a vinyl  
content of 37.3% and a styrene content of 23.3% and is modified with  
N-methyl-pyrrolidone. Component (C) is e.g. ENR(RTM: epoxidation degree  
of 25 wt.%(C-1). The silica is e.g. Nippsil VN3(RTM).

USE/ADVANTAGE - (I) is used for automobile tyre treads. (I) has  
high resistance to wear, rolling, and wet skid.

In an example, rubber compsn. comprising 25 pts. wt. of NR, 35 pts.

wt. of B-1, 40 pts. wt. of C-1, 25 pts. wt. of Nippisil VN3, 25 pts. wt. of carbon black and 3 pts. wt. of a silane coupling agent was press-vulcanized to give a test piece. The test piece had an 100 % modulus of 41, a tensile strength of 284 kg/sq.cm, a tan delta of 0.142 at 60 deg.C, a wet skid of 93.7 at room temp. and a Lanbone (sic) wear factor of 105 at 25 %.

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Title Terms: RUBBER; COMPOSITION; PNEUMATIC; TYRE; TREAD; HIGH; WEAR; RESISTANCE; COMPRISE; RUBBER; COMPOSITION; CONTAIN; NATURAL; RUBBER;

STYRENE; BUTADIENE; COPOLYMER; EPOXIDATION; NATURAL; RUBBER; BLEND;

SILICA

Derwent Class: A18; A95

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Polymer Indexing (PS):

<01>

\*001\* 017; R00708 G0102 G0022 D01 D02 D12 D10 D19 D18 D31 D51 D53 D58 D88 ; R00806 G0828 G0817 D01 D02 D12 D10 D51 D54 D56 D58 D84; H0022 H0011; H0124-R; M9999 M2073; L9999 L2391; L9999 L2073; M9999 M2835; P0328 ; P1741 ; P0351 ; P0362

\*002\* 017; ND01; Q9999 Q9256-R Q9212; Q9999 Q9234 Q9212; K9745-R; K9892; K9449; B9999 B5287 B5276; B9999 B5367 B5276; B9999 B3963-R B3930 B3838 B3747; K9905; B9999 B4171 B4091 B3838 B3747; B9999 B4080 B3930 B3838 B3747

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\*005\* 017; R05085 D00 D09 C- 4A; R01694 D00 F20 O- 6A Si 4A; A999 A237; A999 A419; A999 A771

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K9449; B9999 B5287 B5276; B9999 B5367 B5276; B9999 B3963-R B3930  
B3838 B3747; K9905; B9999 B4171 B4091 B3838 B3747; B9999 B4080  
B3930 B3838 B3747

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A999 A419; A999 A771

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